Claims:

1. A method for dynamically setting probabilistic prices for aircraft charter services comprising the steps of:

receiving trip request information;

determining a maximal time allowance;

forecasting demand based upon demand models;

matching demand based upon the received trip request information, the maximal time allowance and the forecasted demand;

determining a price discount; and

outputting an adjusted sale price based upon the price discount.

2. The method according to claim 1, wherein the maximal time allowance:

$$t^* = \text{argmax}_{t>t1(D)} \{c_T(t) < c_T\}$$

where t = a time that an aircraft is waiting at a location D;

$t_1(D)$ = an arrival time for the aircraft at the location D;

$c_T(t)$ = a total cost with the aircraft staying at the location D until the time t; and

c_T = a total cost for a conventional flight plan.

3. The method according to claim 1, wherein the price discount is based upon a cancellation policy.

4. The method according to claim 1, wherein the step of forecasting the demand includes:

receiving trip information;

specifying a demand definition based upon the trip information;

retrieving relevant data y_t from a historical demand database;

specifying a time series model based upon y_t;

estimating parameters of the time series model; and

applying the time series model with the estimated parameters to forecast demand.

5. The method according to claim 4, wherein the demand definition is one of a single traveler with an associated itinerary and a whole aircraft with an associated itinerary and an aircraft type.

6. The method according to claim 4, wherein the step of determining y_t from a historical demand database includes creating a database, storing a trip time schedule, origin destination pairs, aircraft type information and the number of passengers.

7. The method according to claim 4, wherein the step of estimating parameters includes:

initializing model parameters *p, d, and f*;

estimating parameters $(\phi'_1, \ldots, \phi'_p)$ and $(\theta'_1, \ldots, \theta'_q)$; and

conducting a diagnostic test.

8. The method according to claim 1, wherein the step of matching demand includes:

receiving trip information;

creating an itinerary list;

generating a fictitious demand element within a certain probability interval;

calculating a flight cost c_T;

creating a combined itinerary;

calculating a total flight cost $c_{T'}$ for the combined itinerary;

calculating a maximal time allowance t*; and

outputting a demand matching assignment if $t_1(O^*) < t^*$.

9. The method according to claim 8, wherein the step of generating a fictitious element includes calling the demand module.

10. A system for dynamically determining the price of aircraft charter services, comprising:

a programmed computer;

a storage device, accessible by the programmed computer, for storing trip request information;

a demand forecasting module; and

a demand matching pricing module.

11. The system according to claim 10, wherein the demand forecasting module includes a statistical analysis module and a historical demand database.

12. The system according to claim 10, wherein the demand forecasting module receives trip information, specifies a demand definition based upon the trip information, retrieves relevant data y_t from a historical demand database, specifies a time series model based upon y_t, estimates parameters of the time series model,

and applies the time series model with the estimated parameters to forecast demand.

13. The system according to claim 10, wherein the demand definition is one of a single traveler with an associated itinerary and a whole aircraft with an associated itinerary and an aircraft type.

14. The system according to claim 10, wherein the demand matching module receive trip information, creates an itinerary list, generates a fictitious demand element within a certain probability interval, calculates a flight cost, creates a combined itinerary, calculates a maximal time allowance, and outputs a demand matching assignment if $t_1(O^*) < t^*$.

15. The system for dynamically determining the price of aircraft charter services according to claim 10, wherein the trip request information includes at least one of origin information, destination information, aircraft type information, time schedule information and a number of passengers.